

CONTRACT NAS5-21858

TYPE I PROGRESS REPORT NOVEMBER 1 - DECEMBER 31, 1972

E7.3 10025
CTR-129955

Discipline and Sub-disciplines: 8. Interpretation Technique Development
C. Classification and Pattern Recognition

a) TITLE: Studies of Images of Short-Lived Events Using ERTS
Data Proposal NO. 128

b) PRINCIPAL INVESTIGATOR: Dr. Willlliam A. Deutschman OT-002

c) A STATEMENT AND EXPLANATION OF ANY PROBLEMS: Our two major problems are determining if ERTS took a picture of an area on a given date and the time delay between when we request a scene to be photographed and the final receipt of that scene. We have two ways to determine if a scene was imaged - the User Services Group and the Standard Catalogs. The Catalogs have been two to three months behind the satellite coverage and then it takes three to five weeks to receive a retrospective order. The User Services Group have proved to be unreliable. We were continually told that the "terminal was down" or the "file was having problems". Finally conversations with Mr. Fineberg determined that we could get batch processing if we requested it. We then sent a list requesting batch processing and at least one half of our positions were entered in- correctly. We have submitted a new list and hope that we will finally get a correct answer.

Secondly the time between when ERTS takes a scene that we requested and when we receive the pictures is very long - in fact we have yet to receive any of these scenes. We have been in regular contact with Mr. T. Horn and he assures us that it is going as quickly as possible.

d) DISCUSSION OF ACCOMPLISHMENTS DURING PERIOD: During this period we have analyzed the frames taken of Pah River Fire and several other older fires in the area. We have monitored and classified a number of short-lived events (see attached listing) and requested coverage of three of these events by

(E73-10025) STUDIES OF IMAGES OF
SHORT-LIVED EVENTS USING ERTS DATA
Progress Report, 1 Nov. - 31 Dec. 1972
(Smithsonian Astrophysical Observatory)
3 p HC \$3.00

N73-15359

Unclas

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the ERTS satellite. We also produced a brochure to send to the Correspondents of the Center for Short-Lived Phenomena describing our operation and requesting their help.

e) SEPARATE DISCUSSION OF SIGNIFICANT RESULTS: We are able to identify old fires in the Alaskan tundra and to monitor the development of active fires. The area burned can be quickly determined by a number of methods. The satellite provides a convenient way to monitor fire damage in these remote areas.

f) N.A.

g) RECOMMENDATIONS: None

h) N.A.

i) ERTS IMAGE DESCRIPTOR FORMS - ANY SUBMITTED: None

j) LISTING BY DATE OF DATA REQUEST FORMS, FOR RETROSPECTIVE DATA:
18 scenes - bulk black and white 70MM positive transparencies for all bands - were ordered 3 November and received 27 November.

ERTS coverage was requested of the following NON-US scenes:

Scene	Date Requested	ERTS Over Area
Sakurazima volcano eruption - Kogoshima Bay Japan	11/17/72	12/2/72
1 Piton de la Fournaise volcano eruption - Raunion Island Indian Ocean	10/26/72	11/3/72
	11/9/72	11/21/72
	11/17/72	
2 After effects - Typhoon Bebe - Fiji Isles South Pacific	10/26/72	11/7/72
		11/8/72
2 Storm Ridge Formation - Funafute Atoll South Pacific	12/5/72	12/14/72
Earthquake - Managua Nicaragua	12/27/72	1/10/73
		1/11/73
1 11/3/72 pass picture not taken 11/21/72 pass pictures taken but garbled - rescheduled 12/27/72		
2 all passes no pictures - cloud cover problems Funafute shot re=scheduled for 1/1/73		

- k) As of the close of this report period the full funds required for this effort have not been received. At the present rate of expenditure the existing partial funding will be depleted in the next report period. SAO has been assured by the contracting officer that an additional \$35,000 will be added to the initial \$15,000 to cover the costs in FY'73.